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WR4ACF (146.04/64)

RALEIGH AMATEUR RADIO SOCIETY
RARS
WORLDWIDE FRIENDSHIP

CLUB CALL:
W4DW

ARNS

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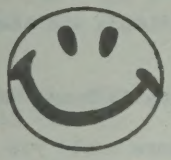
"Raleigh Amateur Radio Society News"

NOVEMBER 1975 ISSUE 73

MEET YOUR MEMBERS... JOHN A. THOMAS, JR., WB4WWT



Due to logistics and technical problems, a picture of John is unavailable in time for printing. However, those of you who know him will verify that this sketch is a pretty good likeness of him.

John A. Thomas, Jr., WB4WWT, is enjoying his second round of North Carolina living.

He was born in Bluefield, West Virginia, but moved with his family to North Carolina when he was two or three years old. His father worked on construction projects in the Goldsboro and Kinston areas. After John completed the second grade, the family moved back to West Virginia. John grew up there and attended West Virginia University at Morgantown where he received a bachelor of science degree in electrical engineering in 1967. He returned to North Carolina three and a half years ago with IBM after working with the firm at Owedo, New York and Manassas, Virginia.

John operates two meters, but in his heart he yearns for DX. "I really want to get down on the low bands and start doing some DX work," he said, "but I just never can seem to get around to working on the code."

John joined RARS in the summer of 1973. He said he has been trying to get wife Marlene interested in hamming, but hasn't quite succeeded. He said she doesn't mind his hamming. "I don't go off and hide from her for long periods of time."

John has two other hobbies, one indoor, one outdoor. The outdoor hobby is golf. "I'm not good at golf at all, but I love to be outside," he said.

The indoor hobby is painting with water colors. "It's for my own personal enjoyment only," he said. "No one else likes to look at it."

John and Marlene have two children. John III is six and Emily is four.

The family lives at 5228 Cedarwood Drive in Raleigh.

John recalls with satisfaction a Sunday morning three-state QSO. Working through a Raleigh repeater, he was talking with one contact in Virginia and another in South Carolina. "It was a very good day," he said.

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NEXT REGULAR MEETING of the Raleigh Amateur Radio Society will be on 5 Nov. 75 at the State Administration Building. All persons interested in Amateur Radio are invited to attend. Free coffee and donuts will be provided.

CRABTREE VALLEY Message Pick-up still goes the 3rd Friday of each month. In addition, we will operate continously from Dec. 15 through Dec. 19. Consequently, we will need all of the operators that we can get. Be sure to come out and lend a hand.

REMINDER, our new S.E.C. is Bill Finch, W4EHF. Bill lives in Fayetteville.

RARS gets new typist. She is Mrs. Donna Boykin of Rt. 3 Wendell (otherwise known as Lizard Lick). Our thanks and appreciation to our former typist Mrs. Lela Coggins of Arden. Incidentally, Mrs. Coggins is the daughter of Jesse, W4JG.

MISC . . . .

QSL BUREAU - For WA/WB/WN4's c/o Sterling Park ARC, P. O. Box 599, Sterling, Va. 22170. The Mgr. is WA4HPF, Terry. He will be on the VA SSB net magazine section on 3947 on 16 Nov. 75 at 1:30 P.M. to discuss the operation of the Bureau which is to begin 1-1-76.

NEW MEMBERS - Mr. Oates (Ron), WA4JWT is an EE with CP&L. His wife is Linda and they reside in Raleigh.

Earl Eason is a self employed contractor. His wife is Fay and they live in Dunn. No call, yet.

Ermond Godwin, Jr. and wife Christine live in Spivey's Corner. What more could you ask for (Lizard Lick)? Ermond works with 1st Citizens Bank. No call, yet.

Joseph Cooper and wife Alamae live in Dunn. Joe is a self employed Dispensing Optician. No call, yet

QRP? - Ask Larry K4FOB. He won an award (1st place, yet). Congratulations.

BIGGEST HAM RIPOFF (HR REPORT, 10 OCTOBER 75)

Biggest Ham Ripoff in years if not all time was suffered by CFP Communications just before the Cleveland Hamfest September 27. W2CFP reports partner WA2KTJ's Dodge van was stolen from the motel parking lot and looted of over $12,000 worth of new Atlas, Icom, Regency, Standard, Ten Tec, TPL and other Amateur gear plus WA2TKL's mobile, tools, etc. The van was later found.

A Detailed Listing including serial numbers is being distributed by CFP and should be must reading for Amateur Radio dealers, deserves reprint in club papers. Request a copy from CFP, 211 North Main, Horsehead, New York 14845 or call 607-739-0187.

FOR SALE - DX60B - Excellent condition with manual and lots of xtals for 40 and 15 -- ideal novice rig - $50.00 Tom WB4WII 876-7604.

ATLAS TRANSCEIVER OWNERS will be interested in an Atlas club and user newsletter being planned. Send SASE for full details to Atlas News Letter, 9004 Harvest Way, Sacramento, CA 95826.

JAMMING COMPLAINTS to FCC have had some negative side effects for traffic net participants. CN (Carolina Net) News reports FCC monitors listening for jammers have been citing net members for improper procedures and bad signals. Better that NCS and others in net activities watch for and correct such problems when they first occur in keeping with Amateur Radio's policy of being a self-policing service.

THE NOVICES' CORNER

The Novice Net (3.740 at 8:00 pm EST on Sundays) hasn't been going to well mainly because the net controloperator hasn't been in town, but from now on, Bert (W4FMN) has so nicely volunteered (TOOT-TOOT) to take over when I'm not around. So when checking in it will be either Bert or me doing the controlling.

I also want to announce that the little kid who's been following me around everywhere finally got his novice ticket. His call is WN4CJF so if any of you guys hear him on 40 or 15 meters, give him a call. His name is Jeb, and he lives just up the street from me.

I thought I'd print a chart I saw somewhere about operating in an emergency. Here it is:

BEFORE AN EMERGENCY

PREPARE yourself by providing emergency power for your station.
TEST your emergency equipment.
REGISTER with your local EC so your services can be rendered in an effective way.

DURING AN EMERGENCY

LISTEN before you transmit, always.
USE SOS only if you are in dire need of assistance.
OBEY the net control station, he is the sole authority.
You can't get a message through if there isn't any order.
COPY bulletins from W1AW. These are most important.

AFTER AN EMERGENCY

REPORT to the ARRL a list of all activity so that the Amateur Service can receive full credit.

See you next month.

Rick
WN4LYN(not for long)

NOSTALGIC WIRELESS

Some folks are turned-on by many outdoor activities. That is hunting and fishing adicts while others are definite indoor types - history "buffs" or even antique gatherers. So where among these various kinds do you find one with a "yen" for the mysteries of wireless, now radio. Of course, without warning, one pops up when least expected.

After almost a half-century, with "ins" and"outs" periods with wireless, there does seem to be some parallels to those various activities - the exploration of an unknown and the feeling of accomplishment while learning and doing "things" just a little differently.

The early sights and sounds which excited the curiosity cells within me are now a bit in the haze of past years. Maybe somewhere near 1911. But now, at times, between poor band conditions and XYL calls, tapes are just rerun.

An early scene was on Uncle Roland's farm. His saw mill/gin stood at the creek bank. Here grew tall straight reeds. Why reeds? Well, the large ones made poles (to me masts), the small ones spreaders. Then from the tobacco barn came string. These items, assembled, became the supports and aerial on the U.S.S. Pamlico, a revenue cutter.

From a cabin near the ship's bridge came sounds of a small thunderstorn - As a lad it was imperative that I get close to such clattering. After a few questions from the man on the gang-way, I was soon at the cabin door.

Oh! such a beautiful sight! Sitting there at control desk, the operator of that racket was a man in a bright blue suit punching a gadget, which controlled that storm...The fellow in blue did not hear me nor the "fuss". His ears being covered with two black biscuits - (Murdock 55s?).

The storm suddenly stopped - he turned knobs, there were questions in his eyes - then, I jumped, - Hey! Kid wan'a listen? --- WOW! Those spurts of sound, they were a real exciter!

Those sounds from a distant, controlled thunderstorm fed through a rotary gap, of course were not at all understood but truly exciting. Now the operator, in blue, explained the gadget was called a key. This was really a KEY 'cause it controlled the spurts of sound giving pre-arranged signals between distant places.

That experience to me seemed the greatest wonder in the world. I was in the "shack" and filled with awe at the array of knobs, dials, switches and large rack of glass jars (Empty?) - The operator told me in those jars was "stored" electricity! - and that sparking crashes came from, Leyden jars - no way!

How could all such happenings come from glass jars? Well this kid just must, in some way, find out! I became a hunter. The mysterious contents of Leyden Jars were not discovered for quite a long time (even now I'm not too sure).

About 1914, I was the happy recipient of assorted "junque". An electrolytic interrupter, bulldog spark-coil, a wood frame of aluminum plates (capacitor) and a wireless transformer, to name some items. These, with other parts were brought home in that red express wagon! Much to Mother's consternation! She wondered, of what earthly use could that STUFF be? For me it was better than gold (or now even uranium).

Mother was tolerant of my stuff - it seemed to keep me from playing in the street. Also, she would listen when I talked of things in the Electrical Experimenter, those "how to build" articles. By now she would even put down her knitting to hold a spool of magnet wire. I was winding this wire upon oatmeal boxes and number six dry cell jackets. These were steps in the construction of "loose-couplers".

Doing this was fun, but at the same time, some joy was had in accomplishing a goal - (The use of the spark-coil and loose-coupler was my introduction to transformers - later my paycheck!)

Of course along with wireless ideas, I had the matter of going to school. And believe it or not each activity helped the other.

About now, 1921, the death toll was beginning for those melodious tones of the rotary-gap. This because the sharp piercing pitch of C.W. (called many names ....!) was causing a revolution - young upstart! Also the names Ohm, Henry, Faraday and Hertz were learned. I was away at school with the hope of becoming an electrical engineer - for two reasons - a brother was I was still excited from the days of Hugo Gernsback's publications.

Time and Progress, may be just change, both are relentless. The old synchronous Rotary gave up to the Alexanderson's high frequency alternator. Also the Poulsen ARC was pushed aside - these two defeated achievements, and they were giants, had to go down before a few glass bottles.

These bottles were the development of Mr. Lee d'Forest and others with the various forms of "electronic relays". (I wondered if these tubes were relative of Leyden Jars?) Electronic relays, audions or electric-valves also supplanted contact detectors (both sulphric acid and galena types) here again was a period revolution. With each new accomplishment the old and new had many advocates.

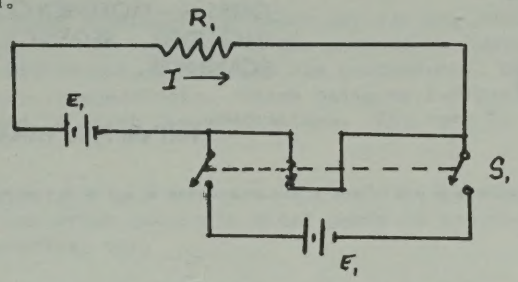
Now about late 1960 to 70's, strange as it may seem, the antique crystal(s) have returned, polished, mixed and multi-connected have just about supplanted the "glass bottles" (wonder what beats an 807!) The wheel seems to have made several full turns.

Now in 1975 that which was a wagonful a few years back is now barely enough to fill a shirt pocket. The experiences in the realm of wireless and its intrecacies is a main tool today. Also, from the peripheral contact comes many tremendous adjuncts in studying other processes of natural phenomea.

Jesse Hodges, W4JG

A RELATION BETWEEN APPLIED VOLTAGE AND POWER DISSIPATION

An interesting topic to consider when building and experimenting with circuits is the effect that voltage drops and currents have on power dissipation in passive devices. The passive device considered here is a "pure" resistance in that no stray capacitance or lead inductance will be considered. Further, transients will be ignored. Assume that a circuit has some resistance, R_1, and a voltage drop across it, E_1, with the expected current, I_1, flowing through it, as shown.



With S_1 in the open position shown above, the voltage drop across R_1 is E_1. When the switch S_1 is closed, the voltage drop across R_1 is $E_1 + E_1 = 2E_1$.

It might be tempting to write the familiar equation for power $P_1 = E_1 I_1$ and ask what happens to the power dissipation in R_1 if the voltage drop across R_1 becomes twice its previous value, or $2E_1$, after S_1 is closed. The new power dissipation in R_1 becomes $P_1 = 2E_1 I_1$ or twice its previous value, right? Let's see.

We know that $I_1 = E_1/R_1$ and can therefore write the power equation $P_1 = E_1 \frac{(E_1)}{R_1}$ or $P_1 = E_1 2/R_1$.

Now the new power dissipation in R_1 with $E_2 = 2E_1$ can be written $P_2 = {E_2}^2/R_1$, or $P_2 = (2E_1)2/R_1$ or $P_2 = 4{E_1}^2/R_1$. Note that ${E_1}^2$, is equal to P_1, so we have $P_2 = 4P_1$. When the voltage drop across the resistor doubled the power dissipation in the resistor quadroupled. What seems to be easily overlooked in this type of exercise is that the current, I_1, also doubled when S_1 was closed. $P_2 = (2E_1)(2I_1) = 4E_1 I_1 = 4P_1$. This power quadroupling could cause component failure especially if the device is running near its maximum power rating. Suppose a 1 watt resistor is dissipating 0.8 watts and for some reason the voltage drop across it doubled; the resistor would be dissipating 3.2 watts. For example, let $R_1 = 5$ ohms and $E_1 = 2$ v, Hen $P_1 = E_1 2/R_1 = 4/5 = 0.8$ watts. Then when S_1 is closed the voltage drop increased to $2E_1 = 4$ V and $P_2 = 16/5 = 3.2$ watts.

I found this discovery to be most interesting some time ago, and hope that it might be of some benefit.

Best of 73's
Chuck, K4NYS

MORE MISC..... (HR REPORT, OCT 3, 1975)

ARRL MIDWEST DIVISION CONVENTION October 17 - 19 in Lincoln, Nebraska will be at the Ramada Inn, Municipal Airport Exit on Interstate 80 -- not the Hilton as reported in October QST and the the HR Report Calendar. An important late addition to the program is John Johnston, FCC's new Chief of Amateur and Citizens Division, who'll speak at the banquet as well as make himself available for discussions during the convention.

LATEST FROM WATERGATE: It's not whether you win or lose, it's how you place the blame!

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Minutes of Meeting held

OCTOBER 1, 1975

Chuck Littlewood, W4RUH
Secretary, RARS

Regular R.A.R.S. Meeting October 1, 1975

The regular meeting of the Raleigh Amateur Radio Society was called to order at 7:40 P.M. by President Al Clement, WA4DKZ, in the Civil Defense Room of the N. C. State Administration Building. Seventy members and guests were present. Al announced the October Executive and Advisory Board Meeting would take place in the South Community Room of Crabtree Valley Mall on October 22, 1975 at 7:30 P.M. All members are welcome to attend.

Jim Leatherwood, WA4BOV, needed additional operators and equipment for the Umstead Park Trail event on October 10, 1975. RARS will provide communications on 2 meters to track the contestants on horseback.

Ed Alderman, WA4PEN, our FM committee chairman, indicated there were to be a number of HT200 walkie-talkies available for emergency and other uses by RARS members, but that a committee needed to be formed to assist in putting the units in operating condition. Lynn Williams, W4WDN, volunteered to help. Good project for AREC support.

Jack Kenny, WB4MCU, asked for and received membership approval to spend $150.00 for code cassette tapes for the RARS novice classes. Class participants would take the tapes with a deposit to cover their replacement, if necessary. Approximately 30 people are studying for their novice license in our current class, headed up by Jack and Lynn Pendleton, K4NYV.

Al extended the best wishes of the club to Lynn and Debbie Pendleton on the arrival of their new baby daughter.

Chuck Littlewood, W4RUH, Chairman of the 1976 Hamfest prize committee requested and received approval to spend up to $800.00 on prizes. The prize structure will be basically the same as the one for our last hamfest.

A vote was taken to amend the club by-laws in the areas of dues due date and the amount of funds the Advisory Board could authorize for each project. There not being a quorum of full members present the matter was tabled. A motion was made and approved to have the advisory board set up a committee to review the by-laws for possible changes to better meet the needs of the society.

Audrey Browne, WB4ZSM, reported on her presentation at the ARRL National Convention in Reston, Va. Our monthly message handling service at Crabtree Mall was ued as a demonstration of on-going public service and public relations. RARS attendance at the recent CB Jamboree was also an important project. Thanks to Audrey for her efforts.

Jim Leatherwood is planning to head up a novice training class for teenagers at Ravenscroft School in Raleigh. A well-equipped radio station may be set up on the campus.

Since nominations for RARS President and Secretary for the 1976-77 years must be submitted at this meeting Al called for the report from the nominating committee. Lynn Pendleton, K4NYV, announced that Chuck Littlewood, W4RUH, and Jim Leatherwood, WA4BOV, have been selected for President and Secretary, respectively. There being no further nomination from the floor it was motioned and passed to close the nominations. The vote by acclamation will be made at the November meeting.

Ken Rudder, WA4JJW, suggested all amateurs who would be interested in working with the local Boy Scouts on contacting other Scouts in other parts of the world via amateur radio. Contact Ken for calling frequencies, etc.

Items under consideration by the RARS Advisory Board include: By-law changes, "out of towner" RARS membership & public relations activities such as RARS participation in the 1976 N. C. State Fair. Also, plans for April 11, 1976 RARS Hamfest will be discussed as required and anyone interested in helping out should contact Jack Kenny, WB4MCU, chairman, before he contacts you. George Richards, WA4EKJ, indicated the club 2 meter synthesizer project kits should be available by the regular RARS meeting November 5, 1975.

After the coffee break, Rick, WN4LYN, drew the door prize names. Alan Plak won the PC Board soldering iron and Ralph Rigdon, WB4SDU won the opportunity to contribute to the RARS Newsletter. Then, Larry Louckes, K4FOB, gave us a most interesting presentation on how to plan and construct a 1200 Watt PEP HF linear amplifier out of a table radio and a TV set or two! We now know who is going to head up the next scrounge committee for the parts on the next club project. Meeting adjourned 10:10 P.M.

Respectfully Submitted, Chuck Littlewood, W4RUH
Secretary, RARS

JACK KENNY WB4MCU

The October Ham Radio is a special Receiver Issue. Their is a very complete article discussin receiver sensitivity, noise figures and dynamic range and how all these numbers relate. The article runs 17 pages and it really covers any aspect of receiver specs and performance numbers you could possibly want to know about. There is an article on designs for improving receiver input stages. A construction article on a five band receiver designed by an Italian ham. Other build-it projects include the following: a 1296 MHz Preamp, a 29 MHz preamp for satellite work, a BFO multiplexer for a multimode detector, a 2304 MHz balanced mixer and a crystal discriminator for VHF FM. Another tech article on considerations for satellite receivers for FM repeaters rounds out the issue. If ham Radio didn't have anything for your band this month you must be on 11 meters.

As usual, I found 73 for October to be chock full of goodies. There are a number of articles every monthi in 73 which don't really fall within the scope of a technical review but they are great fun to read. On the technical side, 73 had a product review of the KLM Echo II SSB 2 meter rig which was very interesting. There were a number of technical discussion articles on explaining OP amps, the various families of ICs and their characteristics, designing regulated power supplies, and an introduction to hobby use of the computer. The concluding build-it articles on the 0-60 MHz synthesizer and the satellite fax system were also included. You have to be a masochist to try that synthesizer project, since it uses four phase-locked loops.

I am happy when I get one to work. There are construction articles building a TTY deluxe keyboard, a megger to check your tools and appliances, some digital clock time bases for power failures and a power amp (1100 mw) for 432 MHz.

October QST goes the antenna route in several articles, i.e. a loop for 75 MHz (like the DFer aboard your fighter plane), a 2-element beam for 160 and several ways to shunt feed that vertical 160,80,75 and/or 20. (When we bury those 120 radials, they'll coin a new one for "Communicator", ------- Broadcaster. Keeping us eager hams up to date, QST brings us the latest on CMOS, complete with all the warnings about grounding the iron, protecting the super-fragile gate oxides, mixing various manufacturers (a no-no in some cases), and a fairly complete listing of who makes 'em. If logic is the game, looks like these gisemos will rule the roost one day. And I thot bipolar logic was here to stay. Back to the books again! (Parts II and II that is, appearing in subsequent issues). Among the homebrews discussed are a 50MHz amplifier handling the full East Coast output (1kw that is, for the non-DXers) and the first of a 3-part pitch on building a converter from Morse to alphanumeric complete with means to display on any home-type TV set. The code displayed will be ASCII, natch. Baudot has gone the way of all French flesh, I guess. For once, no mention is made of completion in one or two hours, or even two weeks. So it starts out good.

Then the ARRL tech and novice editors round out the last of 6 parts of an outstanding series on working with semis. This last pitch deals with a VFO to replace that xtalcontrolled jobbe you built in Part III. This VFO brings up several new twists of import to us moderns, i.e. using NOT silver micas in the tank but -- polystyrene, a pair of 2N2222's in push-push for freq doubling, and a JFET for the buffer. All in all, this entire series is a fine piece of work, MUST reading for all those not right up to date on the latest basics. In closing, read about QSLing with W1AW (no card yet? It's easy, just peruse page 93) and under Stn Activities, one last message of a staunch RARS member, loyal from its inception, none other than Dave W4YDY, now cavorting the range in those Oklahoma hills where lies ole Geronimo. 73, Dave es GL. So, fine readers, grab QST with me, it's got to be..

September CQ has a solution to the backwave problem encountered with break-in operation on not only CW but SSB, and this is done with magic by cutting off the mixers, apparently successfully with the 32S3 and others. But break-in on SSB has got to an innovation new to many of us. Then read about a neato way to DX on 80M. Seems like a new way to use the sporadic E layer, called the "Gray line" in CQ. If it gets commo on 80 in the AM, maybe it will pay for itself (even today, cardboard is not too high-priced, ----yet). In the antenna field, there are articles on a multi-freq dipole with a four section collinear arrangement to permit operation on all bands from 80 thru 15M (called theAZ Special), how 50-ohms became the standard impedance, and some different varieties offered by old timer Bill, W6SAI, to include tuners, sloping dipoles, and a duo-band yagi from JA-land. For you GIs, CQ tells how to build a power supply for the RT70 transceiver and get the beast to perform in real good fashion. And there are still lots of 'em around apparently. Try Fair Eln for one. For the DX hounds, there are listed CQWWDX All-time USA records as well as All-time A3 and A1 records (compared to ten years ago or so, the US has been deeply infiltrated), poop on the 25-26Oct A3 and 29-30Nov A1 contest, and the regular features on DX by K4IIF and George's data on propagation paths, W3ASK that is. The Contest Calendar is followed by the usual, drooled-over pages of goodies. So ---- buy and goodbye.

Bert W4FMN

ANSWERS TO SEPTEMBER'S QUIZ

22-75: $R_{sim} = 150$ ohms; $R_{build\text{-}out} = Z\frac{(N-1)}{(N+1)} = 90$ ohms

23-75: 383 ohms and 1120 ohms

24-75: $A_{db} = 20 \log(V2/V1) + 10 \log (R2/R1) = 66$ db

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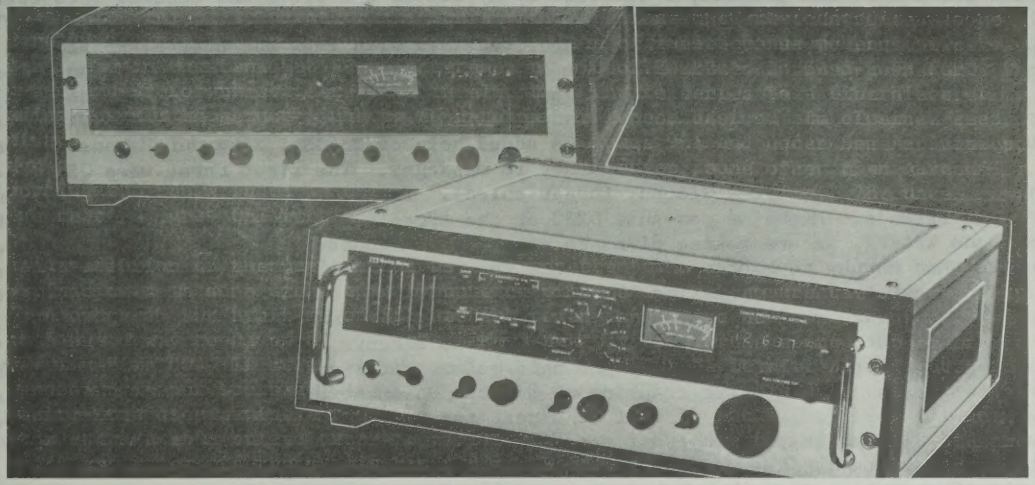

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OCTOBER'S QUIZ

25-75: What is the reactive power of a pure inductance of 0.5h drawing 0.5 amperes from a 60Hz source?

26-75: What value of capacitance will have a reactive power of 50 vars when connected to a 120V, 60Hz source?

27-75: What are the true power and power factor of a load whose impedance is 60 ohms/ +60° when connected to a 120V, 60Hz source of emf?

(Hope you CP&L types know what you're doing. HiHi.)

CRABTREE A WINNER AGAIN

This past Friday, 17 October 75, began as a fiasco at Crabtree. After begging over the telephone for help with the Tarheel Sports Car Rallye, -- meager results obtained via 10 or 2M nets-- your EC arrived late at Crabtree. Only Herb. K4FBG. with harmonic and XYL. there to hold the fort. Crabtree had even forgotten the chairs and table. While Herb scrounged to salvage the material portion of the program, I squatted by my rig on the floor and checked into operations. Charley, WB4DCM, was there to call the regular RARS 2M net, Joe, WA4ENZ was at Neal's QTH, WB4PZU, and later budding Novice Bill Feehan, together with Paul and Audrey, WB4PZN and WB4ZSM, showed up in person to lend dignity to the occasion. Audrey and Paul still not on the same freq per the net, however. Howsomever, when people realized I was not robbing the Mall, they overcame their "noninvolvement" syndrome and we became acquainted. Surprising how many still do not realize ham QSOs are free. With the added help of WB4GSN, Mike out Mebane way and reliable Lou, WB4FFX in Goldsboro, we ground out 18 messages. The first three were QSLd via Lou within the hour! (Mt. Olive, Wilson, forget third). Two were sent up Canada way and one to the Virgin Islands. Maybe we can snag DXCC at the 'Tree. In concert with K4FBG, WB4PZU, WB4GSN, and WB4FFX, we are making plans to establish 2M contacts from Duck to Ducktown (more inclusive than Murphy to Manteo, if you check the map) on Mall nites to insure more speedy QSLs. We've got to keep impressing these civvie types with our capabilities, superior to others in a similar, shall we say, occupation? You bachelors ought to wake up and come on out. The originators get prettier every night. The accents appear to be genuine, too. (Always a way to trap the young, unwary single males. At least I assume the shorter haired are the females). Got to start cranking up for the December drive of 4 days. Maybe the 21 Nov stint will more indicative of what to expect for December. If no better than October's, let's quit. Yet, at least Herb and I are not built that way. One brighter side to the Octoberfest was the 18 fine messages kicked out and the corralling of WB4CCA and CLT to help with the 190ct Rallye (but then I had one cancellation on the net that same nite. Final results on THAT deal will be in another story for the RARS News). To Herb, Audrey, Paul, and Bill many thanks for helping RARS with its Crabtree thing.

GOOD EVENING, MAYOR, OR, ---HOW'RE THINGS AT CRABTREE?

In the midst of the usual steady flow of traffic at Crabtree, once the thing "catches on", guess my consternation as I started one particular message. It started out as just another message to our dense group of fine hams down Florida way, but then I read something about "mayor of Lizard Lick". Hey, he must be HERE. Sue 'nuff, there he was, sticking his hand out in neighborly fashion--even tho he had already been re-elected, the subject of the message by the way. And Mayor Charles Wood wants us hams to help Lizzard Lick with their celebration coming up soon, like a miniature Crabtree at the city hall. So will keep in touch, and maybe some of you hams out there somewhere may want to help the thriving metropolis of Lizzard Lick pass some traffic. Y'all know where it is of course, right near bustling city of famous Bailey,---not too far anyway. So stay loose, you'll get your pick for Lick.

Bert, EC, Wake County, W4FMN

VK6RU BACK IN USA

John, K4VLI was recently in contact with VK6RU, Jim Rumble of Austrila. Jim visited the Raleigh area during the Roanoke Div Hamfest 5 years ago at the Hilton Inn in Raleigh. Jim is in the USA on business and visiting many of his ham friends. He happened to be at the shack of W5DG when John contacted him. Jim was happy to talk with someone in the Raleigh area and wished to be remembered to all of his ham friends here.

ZIP FROM VIC

Ole Western Union himself, ham variety that is, Ken, of K4GCN fame, gave me a call one Friday and I QSLd his message from the illimitable Vic, our erstwhile Roanoke Director and now way up there somewhere in ARRL (Vice-President the First that is). Vic was intrigued with our foray into CB land as described in the RARS News. He wanted a copy of the issue dealing with the subject. So I sent him a copy. Receiving a nice radio message back and later a letter, I was informed Vic is trying to get others to follow our tack. So fine work on that, --I believe the workhorses here were primarily Jack WB4MCU, Chuck W4RUH, and Bob K4MC. Typical of Vic was his solicitude for my daughter, almost KIA in a car accident. As recounted to many on the net, primarily to explain my absence at various ham functions, this was my oldest daughter (a venerable 19) Linda. And she was a mighty lucky girl, she and her husband, Billy. Got to admit, some of these docs are all right. They did a great job. Look real hard and you may see a slight scar on her left eye, but, at her age, even that will completely disappear one day. As I told them both, if only they had been home with the rig ---- AFTER they got licenses of courses -------.

Bert W4FMN

THE LAST OPTION by Austin Farrell WZBXE/4 (All Rights Reserved)

Horace Bullfeather builds an electronic clock which has several options for its construction. A bit confused with the various choices, he finds an option that wasn't in the plans.

The Raleigh Amateur Radio Society started a number of club projects to help their members build radio equipment at cost. The members pooled their talent to design and build equipment such as transmitters, receivers, and frequency counters. One of the first projects was a solid-state all electronic clock. This clock was to play a much bigger part in the life of Horace Bullfeather than he had planned. Horace was a ham radio operator dedicated to his hobby.

"Horace, are you going to that radio club again? I thought we decided you were through with that!" He winced when he heard his name. Harriet's voice had its familiar tone of displeasure. She had never understood his interest in electronics nor his need to talk to people half-way around the world that he didn't know. It was a part of Horace's world to which she could never belong. Harriet had made a brief attempt at understanding radio. She had listened to Morse code and tried to tell the difference between a dit and a dah. Even by voice, the conversations were boring with comparisons of S-units, antenna gain, radiation patterns, etc. If you could avoid that, the only thing left was the weather.

"Yes, Harriet, I'm going to the radio club. The boys are picking me up tonight and I'll be bringing home the parts for that new clock. It should be much better than the one we have in the bedroom." "OK, but don't be late. Its a working day tomorrow." Shortly, the boys arrived and they were on their way to the club.

The project was one that had stimulated a lot of interest among the members. Not all were amateurs and they were anxious to learn all that needed to be learned. A clock did not sound as complicated as a digital frequency synthesizer. It should be a good project with which to start.

The clock was electronic and all-solid state. It did everything but tick. The sample clock was in a small white-plastic case with a transparent red plastic face. Red light emitting diodes (LED's) displayed the hours, minutes, and seconds, with a glowing colon between them. It could be made to display 24-hour time, like the military, which is often used by amateurs. The time was displayed for 8 seconds then it shifted to the month and day for two seconds and returned back to the time. It could turn on an alarm for a selected period of time. A "snooze" push button permitted a sleeper to turn off the alarm for ten minutes and then be roused again.

Of course all these feature options required setting. This was done by means of a selector switch and toggle switch on the back and the push button to advance the digits once each second. Proper selection of switch positions allowed setting of the month, hours, and minutes.

For some of the younger members, the price was a bit steep, even at a cost of only the parts. It was possible to select only the options you wanted and get a reduced price. Horace, of course, had all the options. This was the start of his problem, but he didn't know it at this time.

The display board and the circuit board with all the transistors, integrated circuits, and so on, was well designed. It was easy to follow the plans to assemble them. The difficulty was in selecting the circuits for the various options, mounting the diodes required for them, and connecting them to the selector switch. This was left up to the member.

The meeting progressed slowly with the reading of the minutes, talk on the new proposed licensing structure, and news about repeaters. Horace passed up the free refreshments to be one of the first to grab his bag of parts, plunk down the rest of the money for it, and get to a corner to poke through the parts and guess what they were for. The meeting finally ended with hardly a word from Horace. The ride home was full of talk of how to build the clock and what could be done with it. That ten-minute snooze feature could surely be used to time the ten minutes an amateur is allowed to broadcast before he must give his call letters again. The boys dropped him off and soon he was in his ham shack -- that portion of his house reserved for his amateur radio equipment and where he could leave projects and tools untouched by the family until he could return to them.

Horace poured over the plans and had spread out the parts when he got the call for bed. The next day at the office was a blur. All he could think of was the circuit boards and how the clock could do all those things it was supposed to do. Dinner was a hurried affair with little conversation and little idea of what was eaten. As quickly as he could, he hurried to his ham shack and shut the door. Harriet was well aware of the far-away look in his eye at dinner and heard the click of the door as he disappeared. She sighed, "He is at it again!" Harriet was alone with the dishes.

Horace cleared a space on the bench with a sweep of his arm. The parts only glanced at the night before were carefully laid out at the rear of the bench in small dishes according to type. The first board was laid flat and the land pattern carefully cleaned with an eraser. The soldering iron was brought out and warmed up. He was on his way.

The evening was quiet for Harriet and finally she went to bed. She was awakened briefly by the noise of a truck. Much later she felt him slip into bed and soon begin to snore. Everything was normal. It would be a long night ahead.

The next day Horace finished the two circuit boards, tested them, found a shorted capacitor, and two lumps of solder shorting out circuits. It was ready for the first smoke test. The unit was not complete but the test would tell if all was well up to this point. Horace plugged in the power and was rewarded at the display with "8:88 88." All digits except the first were

an eight. It was ready to have the selector switches wired.

Horace studied the option circuits again. Option A for this, option B for that, option C if you had both, but you went to D if you also had this, and so on. With all the options, as Horace had, it really became confusing. Impatient to study it more, he forged ahead.

The final group of parts lay before him and it was obvious, or so it seemed, that he needed an additional diode and a terminal board to mount all the diodes. They were not in the bag of parts. A hurried look in the junk box found the parts and progress continued. Much later and blurry-eyed he sighed with relief as the last diode was soldered to the board. All the interconnecting wires were spread over the bench and the display was propped up to read it easily. "I hope I figured it out correctly", he said to himself. "I've got to try it and see if it works."

The selector switch provided five positions, run, alarm, delay, calendar, and time. Horace switched on the power and again the display was filled with eights. He turned the selector switch to the "time" position to set the time and poised his finger over the push button. The moment of truth had arrived.

Harriet busied herself in the kitchen. Horace was ignoring her again and buried in his hobby. Electronics - electronics, that was all he thought of. If only he would clean out that junk and do something useful. Of course he needed it for his work. He had provided a good living, but all she could think of was that the mad professor was back at his work. Thank goodness he was working in his ham shack. The last project resulted in a hole in the kitchen counter.

The house seemed quiet. It usually wasn't like this when Horace was in his ham shack. There was always a short-wave receiver going with those stupid conversations about ham radio equipment, the table saw, the grinder, the electric drill, or the sound of a file torturing sheet metal. She opened the door to the ham shack. The light was on, but Horace and his latest toy, the clock, was gone. She flipped the wall switch, turning off the power to his bench and the desk light which glowed on top of the bench. The least he could do, if he went out, was to turn off the electricity. Unnoticed was a plug in the outled on the bench with three inches of wire, leading to a bare spot on the bench. Nothing was connected to it. Harriet went off to bed and this time went quickly to sleep.

Horace pressed the push button to set the time option and found to his satisfaction that it advanced the minutes once each second. He then switched to the month option and again pressed the push button. The display started counting off the months just as it did for the time. He pushed the button again and held it. It silently counted off the months to set it for September, but he held the button too long and it flipped from 9 to 10. He was one month over. At least it worked correctly. As it flipped from digit to digit he noticed a variation in the light outside his window. It got brighter, dimmer, then bright again. What was happening to the sun? The brightness had definitely changed.

An odd feeling went through him. He left the room and moved to the stairs and slowly moved upwards. Harriet was talking to a man. He could hear his deep voice answering her but was unable to distinguish what either of them were saying. He crept slowly to the end of the long hall, not being sure why he wished to be quiet. The door to the living room was ajar and he could look out into the room without being seen.

The man had his back to Harriet and was saying, "We have searched all over the state and have not found your husband. He had disappeared." Horace burst into the room, "What is this all about? I'm not lost!" Harriet fainted.

As the two men bent over her to see what they could do, the man introduced himself as Lt. Harper of the Raleigh police and demanded to know where he had been. As Harriet came to her senses she also asked the same question.

Horace was at a loss and many questions and few answers passed back and forth. His explanation of being in his ham shack was a poor reply until the fact came out that he had been gone a month. "I don't believe it, he shouted." Harriet showed him the newspaper with the date on it. It was October.

Horace thought carefully of the events of the past few hours and recalled the brightness of the sun changing as he set the clock to the month, but it was set to OCTOBER, not September. The only answer was that the clock's last option had moved him ahead in time. The overshoot of one month when setting the clock must have done it! Lt. Harper admitted that three other members of the Raleigh Amateur Radio Society were also missing.

The police detained him at headquarters for two hours giving his explanation. He felt that the other members would show up in due time. While there, a report came in that another member had mysteriously reappeared.

During the next week the remaining two members reappeared. Attempts to repeat the experiment failed. Examination of the clocks showed a faint burnmark in the circuit board. The Raleigh Amateur Radio Society really turned out a fine kit, but some of the members are curious as to what the next kit will bring.

FCC INVESTIGATES ORDER TO JAM CB RADIO CHANNELS

WASHINGTON,DC -- An FCC investigation is underway into what may be the first occurrence of a local government taking action to ban radio communications without federal order.

On September 6, an order was issued to "jam" citizens band radio channels in the Louisville,KY area by U.S. District Judge James Gordon. The action was taken to avert organized protest demonstrations in the wake of a school busing controversy.

Russell Moore, an engineer with the Jefferson County Board of Education, received the order from Judge Gordon to use a 1000-watt transmitter to block CB radio within a designated area. A simultaneous order was issued by Mayor Sloane of Louisville to place a ban on possession of all two-way radios within a specified jurisdiction.

Local residents have registered complaints with the FCC against the order prohibiting them from using radio equipment for which they are licensed.

Roscoe E. Long, associate counsel for the office of general counsel at the FCC, sees far-reaching implications of the Judge's order. "A 1000-watt transmitter will do more than jam stations in the Louisville area," he explains. "Jamming the 27-MHz band with this outside transmitter has great distance potential. It is possible that interference from this transmitter has great distance potential. It is possible that interference from this transmitter could be felt clear up to Canada." Long's view is that the situation is a technical as well as legal matter.

The question of how far local government can go after the FCC licenses individuals to operate within, rules and guidelines is part of the Commission's investigation. Says Long, "I believe this is the first time a case of this type has come up outside of war time, when temporary communication barriers were necessary for protection against subversive groups."

The FCC's findings will be brought before the Justice Department to help determine if the jam was valid under provisions of the Communications Act.

A spokesman for the Commission's Chief Engineer's office surmises, "To say the situation has raised a few eyebrows is an understatement."

---Margie Stenzler

THE WAY IT GOES

Nothing seems to emphasize the fact that one is getting older than the beginning of the New Year. However, there are certain other indicators which are equally significant. So . . . you can be sure that you're really an Old Timer if:

. . . the term "kiloHertz" sounds funny to you.

. . . You beep HI on your auto horn when you pass another car with a ham license plate.

. . . You have a 6 foot relay rack in the basement with a 20 meter transmitter mounted therein.

. . . You believe that FM is primarily good for listening to classical music.

. . . You walk into Allied and ask for an 8 mfd. Condensor.

. . . You can remember Allied.

. . . The word "Rettysnitch" does not sound like technique for your XYL's needle-point.

. . . You remember when Heath manufactured airplane kits -- for real airplanes.

. . . The term MOPA described the kind of transmitter you hoped to build.

. . . A skywire meant a piece of wire strung between two trees, and not a collection of aluminum plumbing on an oil drilling rig.

. . . You used an F-1 button as a microphone in your first AM rig.

. . . You used AM, with no sense about which sideband.

. . . A Novice meant a probationary priest.

. . . CQ was the signal you sent at the beginning of a QSO, 73 was the signal you sent at the end. Ham Radio was your hobby, and QST was a magazine you read.

. . . A drain was only the hole in the middle of the kitchen sink.

. . . You had a pair of earphones which reproduced the same signal in each ear.

. . . You had a receiver into which these earphones could be plugged.

. . . You think that 10-4 is the score of a Cubs-Detroit game.

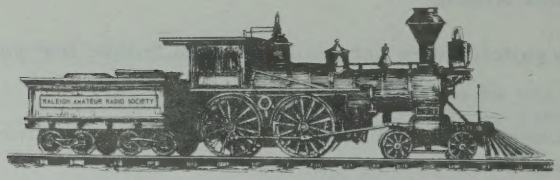
. . . You remember having read out of the articles mention is "25 years ago" column in QST.

Julian Jablin, W9IWI
via ARNS Bulletin

RARS CALENDAR OF EVENTS

1-2	November	N C Q S O Party
5	November	Regular Meeting
9	November	OK DX Contest
19	November	Executive and Advisory Committee
21	November	Crabtree Valley Message Pick-Up
3	December	Regular Meeting

RARS NETS - MONDAY, TUESDAY, THURSDAY, FRIDAY NIGHTS
8:00 PM - 2 Meter FM Net - 146.04/64 Repeater
7:00 PM - 10 Meter SSB Net - 28.540 MHz



TOOT! TOOT!

Jerry Wilke

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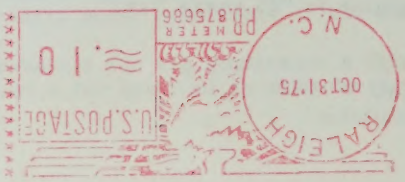

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